

**Comments on Report to the Joint Committee on the Environment of the
Connecticut General Assembly**
Draft of 12/22/05, <http://dep.state.ct.us/air2/diesel/docs/fullreportd3dec23.pdf>

**Prepared by the Connecticut Clean Cities: Greater New Haven, Southwest CT, Norwich
and Capitol Clean Cities.**
12-29-05

Table 1, Page 4

| Original Version | Suggested |
|---|---|
| Retrofit all 1998 and newer transit buses with DPFs by 2010. Replace all 1997 model year (MY) and older buses with vehicles compliant with the 2007 federal standard. | Retrofit all transit buses purchased between 1998 and 2006 with DPFs by 2010. Replace all pre-1998 model year (MY) transit buses with vehicles compliant with the 2007 or 2010 federal standard. Conduct a feasibility analysis of adding alternative fuels (biodiesel, natural gas) or hybrid vehicles into the CT Transit and regional transit agency fleets. |
| Focus on retrofits of older buses, selecting emission reduction technologies that will maximize the reduction of diesel particulate exhaust emissions. | Focus on retrofit and replacement of older school buses, selecting emission reduction and alternative fuel technologies (specifically biodiesel and CNG) that will maximize the reduction of diesel particulate exhaust emissions. |

Table 3 Page 12

| Original Version | Suggested |
|---|--|
| Establish a statewide voluntary diesel collaborative. Costs: Administrative costs to the state for the development and implementation of an education and outreach program. | Establish a statewide voluntary diesel mitigation collaborative. The collaborative should have as its mission the development and implementation of strategies that reduce emissions from diesel vehicles, through the retrofit of existing diesel vehicles with emission control strategies, the replacement of older diesel equipment with new equipment, and through the implementation of alternative fuel vehicles—primarily natural gas and biodiesel. Costs: Administrative costs to the state for the development and implementation of an education and outreach program. A number of alternative fuel educational resources are available that have been successfully used in schools at all levels. |

Table 3, Page 12 4th Row Down

| Original | Suggested |
|---|---|
| <p>Call on DOT to consider amending the CMAQ program rules to encourage the purchase of AFVs</p> <p>Costs: Any reallocation or reprogramming of CMAQ funds will impact present and future CMAQ projects.</p> | <p>Call on DOT to consider amending the CMAQ program rules to encourage the purchase of AFVs and the development of related refueling infrastructure.</p> <p>Costs: Any reallocation or reprogramming of CMAQ funds may impact present and future CMAQ projects. CMAQ funds for AFV projects may be able to leverage other federal funds, such as State Energy Program funds and federal tax credits for AFV incremental costs and refueling infrastructure.</p> |

Table 3, Page 14 Top Row

| Original | Suggested |
|---|---|
| <p>Develop model language for school bus contracts that are due to expire next 2 years. Specify lower age limits for buses, lower fleet age and increased quotas to encourage replacement with 2007 compliant vehicles.</p> | <p>Develop model language for school bus contracts that are due to expire next 2 years. Specify lower age limits for buses, lower fleet age and increased quotas to encourage replacement with 2007 or 2010-compliant vehicles.</p> |

Table 3 Page 15

| Original | Suggested |
|--|--|
| <p>Benefits: Biodiesel is a clean, domestically produced fuel, which will decrease our dependence on foreign oil.</p> | <p>Benefits: Biodiesel is a clean, domestically produced fuel. Increased use of biodiesel as a transportation fuel (and as a substitute for heating oil) will decrease our dependence on foreign oil. Biodiesel can-- and is-- being produced domestically from renewable sources. The use of biodiesel blends (up to 20% when combined with conventional or low sulfur diesel) as a primary heavy-duty vehicle fuel presents a minimal cost approach to pollution reduction.</p> |
| <p>CNG has a demonstrated track record as a clean fuel for buses and some construction equipment</p> | <p>Compressed Natural Gas (CNG) has a demonstrated track record as a clean fuel for <u>transit buses, school buses, refuse trucks, municipal, state and private heavy duty fleet vehicles</u></p> |

Table 3, Page 15 Continued

| | |
|---|---|
| Benefits: CNG is a clean fuel that results in emissions substantially lower than those from diesel fuels.15 | Benefits: CNG is a clean fuel that results in emissions substantially lower than those from diesel fuels. CNG engines have emission levels lower than the cleanest diesels and can achieve the EPA 2007 and 2010 particulate standards without complex after treatment systems. Over 90% of the natural gas consumed in the US is produced in the US. |
| Costs: The primary cost of CNG is attributable to vehicle repowering. CNG on an energy content basis is more expensive than diesel fuel. | Costs: The primary cost of CNG is attributable to vehicle incremental costs and the refueling infrastructure . More widespread use of CNG is contingent on incentives for fueling infrastructure that should be actively pursued. CNG is typically priced at or below gasoline and diesel fuel on an equivalent energy content basis. |

Table 4 Page 17, Third Row

| Original | Suggested |
|--|--|
| Costs: It could cost as much as \$9 million, over time, to implement a waste hauler retrofit strategy | Costs: It could cost as much as \$9 million, over time, to implement a waste hauler retrofit, replacement and alternative fuel vehicle program. Costs of alternative fuel refuse truck projects could be partially covered by federal funds. |

Table 5, Page 18, 1st Row

| Original | Suggested |
|---|---|
| Retrofit all 1998 and newer transit buses with DPFs by 2010. Replace all 1997 model year (MY) and older buses with vehicles compliant with the 2007 federal standard. | Retrofit all transit buses purchased between 1998 and 2006 with DPFs by 2010. Replace all pre-1998 model year (MY) transit buses with vehicles compliant with the 2007 or 2010 federal standard. Conduct a feasibility analysis of adding alternative fuels (biodiesel, natural gas) or hybrid vehicles into the CT Transit and regional transit agency fleets. |

Table 5, Page 20, 2nd Row

| Original | Suggested |
|--|---|
| Focus on retrofits of older buses, selecting emission reduction technologies that will maximize the reduction of diesel particulate exhaust emissions. | Focus on retrofit and replacement of older buses, selecting emission reduction and alternative fuel technologies that will maximize the reduction of diesel particulate exhaust emissions |

Table 3, Page 21, 2nd Row

| Original | Suggested |
|---|--|
| Benefits: This decreases emissions by providing a source of state funding to encourage retrofit and replacement of diesel-powered vehicles. | Benefits: This decreases emissions by providing a source of state funding to encourage retrofit and replacement of older diesel-powered vehicles with emission reduction and alternative fuel technologies that will maximize the reduction of diesel particulate exhaust emissions. |

Page 22, First paragraph, Add (blue) prior to last sentence:

.....new Diesel Emissions Reduction Act (DERA). [Federal funds for Alternative Fuels are also available from the Department of Energy State Energy Program.](#) Other States such as

Page 26, Last paragraph Add to sentence the blue text:

In conjunction with successful retrofit projects, two Norwich middle schools and several New Haven middle schools have implemented the Connecticut Schools Air Quality Curriculum. [Also, a DOE-funded educational program on alternative fuel vehicles was developed and presented to all levels in the Norwich School System at the time the three CNG school buses were introduced. This program is available for other school districts and municipalities.](#)

Page 69, In the School Bus report, , last paragraph re CNG schools buses. “However the vehicle can run as much as four times the cost of diesel powered buses or \$25,000 to \$40,000 per vehicle” According to the recently released TIAX study (and other analyses), the increased cost of ULSD fuel plus the increased purchase and operating cost of 2007 diesel buses will be making natural gas transit buses more cost effective than diesel. The recently passed federal tax credits will make that value gap wider. The same comments can probably be extended to School Buses. In this light, 4X the cost seems quite unreasonable. In a recent conversation with a School Bus company the current costs of an 84 passenger, front engine school bus is approximately \$90,000 for Diesel and \$120,000 for CNG. Also, the text does not track the \$25,000 to \$40,000 per vehicle – the author probably meant an incremental cost of \$25,000 to \$40,000 –This would then agree with the last comments re CNG on page 72. The cost effectiveness will probably have to be recalculated.

Page 218 Please list the following individuals as participants in the Fleets (On-Road) Subcommittee

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